

Weather of 2011: Warm, Wet and Wild

2011 became infamous for natural disasters. Deadly earthquakes and tsunamis were soon followed by a series of some of the costliest and deadliest tornado outbreaks in the U.S. Then, after another summer of scorching record heat, back-to-back tropical systems dumped historic amounts of rain over many parts of the state, leading to some of the worst flooding in years. A record October snow storm also slammed areas west of I-95.

January was brutal for the 3rd consecutive year. 20 days failed to rise above freezing, and all 31 days had sub-freezing lows. Meanwhile, precipitation was well below normal, but virtually all of it fell as snow. Several light snows then a big snow from an intense storm over the Mid-Atlantic on the 26th resulted in above normal snowfall.

A ferocious blizzard roared across the middle of the country at the beginning of February. While 2+ feet of snow pounded the Midwest, our area endured an ice storm. Unlike January, temperatures in February were quite mild, with only a handful of days below freezing and little snowfall. It was also quite changeable. After a high of 70 on the 18th, a storm with rain, sleet and the month's only significant snow of 4" followed on the 20th-22nd. The month finished with thunderstorms rumbling through on the 28th.

Snowmelt combined with back-to-back heavy rain events in early March to cause significant flooding. Heavy rain then snow fell the 5th-6th, 1.41", then another 3.03" of precipitation – a storm that began as snow and sleet then changed to rain – fell the 9th-10th. Wills Creek was raging after this storm. Meanwhile, a cool second half offset a mild first half for near-normal temperatures in March. Temperatures were stubborn to rise.

April was very wet as well. It seemed to rain almost constantly. Nearby Frostburg recorded over 8 inches, with over 6 inches at this station. Several intense thunderstorms hammered the area, including the ones that produced two EF-0 tornadoes in the Green Ridge area of Allegany County early on the 28th. From April 25th-28th, an incredible 359 tornadoes hit the southern & eastern U.S., surpassing the April 3-4, 1974 "Super Outbreak." It was also the deadliest tornado outbreak since 1925, with at least 340 deaths.

May wasn't much calmer across the area – or across much of the country. As in April, temperatures were above normal. On the 17th and 18th, severe thunderstorms stalled over our area, bringing torrential rains, large hail, high winds and a funnel cloud over Cumberland. Over 2 inches of rain fell each day, causing flash flooding. Another major severe weather event unfolded during the 4th week. During this event, an EF5 twister devastated the city of Joplin, MO and killed over 160 people. On the 26th and 27th, severe thunderstorms rocked Allegany County again with large hail, up to the size of golf balls in and around Cumberland, damaging winds, and more flash-flood producing downpours. May was the 3rd wettest in 64 years of records with 8.00" of rain, and the spring of 2011 was the wettest spring and season on record with 20.06" of rainfall.

A long, hot and dry weather period began Memorial Day weekend. June began with a high of 91, with 90s again on the 8th and 9th. Nights were muggy and mild, and days were warm and humid. Several thunderstorms grazed the area, only one of which produced more than a half-inch of rain. Precipitation struggled just past the 2-inch mark.

July was sizzling hot from start to finish, with 21 days reaching 90 or higher, tying 1955's and 1999's record for July and for any month. The most intense heat wave since 1988 baked the area late in the month. The high of 103 on the 22nd was the 2nd

highest reading on record – the hottest 105 on July 16, 1988. The low was 80, making it the hottest day on record. Likewise, July was the hottest month on record, with a mean temperature of 78.3 F. There was virtually no relief from the heat, as storm after storm evaporated as it crossed the mountains. A meager 0.67” of total rain set a new record low for July and for any summer month.

August began very warm, with 3 of the first 4 days in the 90s, and lows failing to drop below 70 most nights during the first week. The stifling heat finally began to loosen its grip on the area, with temperatures mostly in the 80s the balance of the month. A slow-moving thunderstorm on the afternoon of the 14th dumped 2.09” of rain in an hour, pushing precipitation above normal in August. Later in the month, a rare 5.8-magnitude earthquake, centered in Virginia, rattled the eastern U.S. and even southeastern Canada. Shortly thereafter, Hurricane Irene, whose moisture passed almost entirely to our east, stole all of the headlines as the storm pummeled areas from North Carolina to Vermont with devastating winds and flooding.

One word would sum up September: wet. The month began with heavy thunderstorms early on the 1st. Then from the 4th-9th, Tropical Storm Lee stalled over the region and dumped 6.43” rain in 6 days. The heaviest rain (3.52”) fell on the 6th – the 15th anniversary of Hurricane Fran, which dumped 5.20” of rain in only 12 hours on the same date in 1996, causing severe flooding. The worst of Lee was to the east over central Maryland, where double-digit storm totals were not uncommon. Severe flash floods hit some areas near Baltimore and Washington, D.C. Severe thunderstorms dropped over an inch of rain on the 27th, bringing the month’s total to a whopping 9.35”, the 2nd wettest September on record. Cumberland had its wettest month in 96 years with 9.71” of rain.

The active weather pattern continued into October. A very chilly rain – which fell as the earliest measurable snow in some nearby mountains, fell on the first 3 days, before a long-awaited stretch of fair, warm weather. A slow-moving system brought 1.82” of rain from the 12th-14th. Temperatures in October were below normal for the first month since January. On the 29th, a surprise snow storm hammered areas west of I-95. 7.0” of snow was recorded, with the highest amounts of a foot or more at the higher elevations. It was the greatest October snow storm in area history, with records dating back to 1889.

Perhaps in attempt to balance itself out after three tumultuous months, Mother Nature had no tricks up her sleeve in the final two months. There were no earthquakes, hurricanes, floods or snow storms. Virtually no rain fell the first half of November. A wet second half nearly offset the lack of rain in the first half. Temperatures returned to above normal, with mainly 50s and 60s for highs, and like the rest of the fall, there was a lack of extremes in either direction. The fall of 2011 finished 2nd wettest on record, with 17.01” of precipitation recorded in September, October and November.

December was much like November, with very mild conditions and a lack of any particularly cold air, with virtually no snowfall. Precipitation was very close to normal again. 1.88” of rain fell on the 6th-7th. The rest of December was quiet, with some more rain and a few snow showers from the 27th on to round out the month and year.

2011 La Vale Area Weather Statistics

2011 Monthly and Annual Climate Summary											
LaVale, MD, Allegany County											
Observer Scott Lohr (data compiled by Nate Mullins)											
Station Observation Time: Midnight											
Lat: 39.657780°, Long: - 78.821871°, Elevation 1016'											
Temperature, ° F								Number of days			
Month	Mean Max	Mean Min	Mean Temp	Departure	Max Temp	Date	Min Temp	Date	Max ≥ 90	Max ≤ 32	Min ≤ 32
Jan	32.4	20.2	26.3	3.5	44	4	2	24	0	20	31
Feb	42.5	26.1	34.3	1.9	70	18	14	10*	0	6	25
Mar	49.4	32.4	40.9	0.2	72	21*	19	3	0	0	15
Apr	64.2	44.3	54.3	2.5	84	27	31	6	0	0	1
May	73.3	53.9	63.6	2.8	92	30	38	6	2	0	0
Jun	80.5	61.2	70.9	2.0	93	9	49	4	3	0	0
Jul	90.1	66.5	78.3	5.5	103	22	54	16*	21	0	0
Aug	83.7	64.4	74.0	2.5	94	1	52	30*	3	0	0
Sep	71.8	58.9	65.4	1.2	91	3	40	16	1	0	0
Oct	59.0	44.7	51.9	1.3	72	9	30	31*	0	0	4
Nov	56.6	35.5	46.0	3.4	74	14	25	19*	0	0	12
Dec	45.7	30.3	38.0	5.1	60	5	17	12*	0	0	21
Year	62.4	44.9	53.7	1.9	103	7/22	2	1/24	30	26	109
Precipitation, Inches				Number of days				Snow/ice, Inches			
Month	Total Precip	Departure	Max Day	Date	0.01" ^	0.10" ^	0.50" ^	1.00" ^	Total Snow	Max Day	Date
Jan	1.13	-1.74	0.63	26	10	4	1	0	15.0	7.0	26
Feb	3.27	0.55	0.87	21	12	8	3	0	4.7	3.0	21
Mar	5.99	2.16	1.62	10	11	11	4	3	3.0	2.0	9
Apr	6.07	2.39	1.19	16	16	10	5	2	T	T	2*
May	8.00	3.87	2.29	18	13	9	4	3	0.0	-	-
Jun	2.23	-1.39	0.55	19	13	6	2	0	0.0	-	-
Jul	0.67	-3.02	0.53	8	6	1	1	0	0.0	-	-
Aug	3.77	0.48	2.09	14	11	5	2	1	0.0	-	-
Sep	9.35	5.86	3.52	6	17	8	7	3	0.0	-	-
Oct	4.57	1.59	1.02	12	15	10	3	1	7.0	7.0	29
Nov	3.09	-0.16	1.32	22	7	6	3	1	0.0	-	-
Dec	2.95	-0.07	1.68	7	10	5	2	1	0.5	0.3	28
Year	51.09	10.52	3.52	9/6	141	83	37	15	30.2	7.0	10/29*
Note: * = also occurred on earlier dates that month											

Month	Number of days with						Monthly Summary Comments
	Fog	Sleet	Glaze	Thunder	Hail	Dmg wind	
Jan	2	1	0	0	0	0	Frequent snows, blustery, dry
Feb	6	2	2	1	0	1	Mild, damp, frequent strong winds
Mar	9	1	0	1	0	0	Mild then cold, some heavy rains
Apr	12	0	0	7	0	0	Mild, variable, lots of rain/t-storms
May	8	0	0	6	2	0	Warm, severe storms/hail/floods
Jun	1	0	0	8	1	0	Warm, hot early, much drier
Jul	0	0	0	6	0	0	Extreme record heat & dryness
Aug	2	0	0	4	0	0	Warm, humid, scattered t-storms
Sep	10	0	0	4	0	0	Mild, very wet, Tropical Storm Lee
Oct	6	0	0	1	0	1	Cool, wet, windy, record snow
Nov	5	0	0	0	0	0	Mild, dry 1st half, wetter 2nd half
Dec	2	0	0	0	0	0	Mild, average rain but little snow
Year	63	4	2	38	3	2	Warm, wet, stormy, windy, wild